CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

COUNCIL AGENDA: 4-19-05
ITEM: 7.1

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Carl W. Mosher

SUBJECT: **SEE BELOW**

DATE: 4-7-05

Approved Kay Winer Date 4/7/05

SUBJECT: REPORT ON BIDS AND AWARD OF CONTRACT FOR THE SAN JOSE/SANTA CLARA WATER POLLUTION CONTROL PLANT, FY 2004/2005 CAPITAL IMPROVEMENT PROGRAM, SECONDARY BLOWER BUILDING, ABSORPTION CHILLER REPLACEMENT PROJECT

RECOMMENDATION

Report on bids and award of contract for the "San José/Santa Clara Water Pollution Control Plant: Secondary Blower Building, Absorption Chiller Replacement Project," to the low bidder, Environmental Systems, Inc. in the amount of $489,000; and approval of a contingency in the amount of $49,000 for a total agreement amount not to exceed $538,000.

BACKGROUND

The San José/Santa Clara Water Pollution Control Plant (Plant) maintains two absorption chillers located in the basement of the Secondary Blower Building. This equipment is employed to provide chilled water to large, heat-intensive equipment, such as the gas-fired generators and to ensure the proper operation of all such machinery and equipment. The capacity of these two chillers also allows for the cooling of several work areas within the Plant. The efficiency of the units is highlighted by the fact that they convert the waste heat generated by the engine/blower units by providing steam energy to the absorption chillers.

The chillers are approximately twenty-eight years old and have exceeded their normal life expectancy. Moreover, both units are experiencing increased instances of generator tube failure; forcing some tubes to be plugged due to ruptures, and limiting the system's capacity. Additionally, the existing process-piping configuration does not allow each chiller to be completely isolated from the other during major repairs, thereby creating reliability issues.

ANALYSIS

In order to provide for a long-term and effective solution to this problem, this project includes the supply and installation of two new absorption chillers, and the redesign and installation of a process-piping configuration that allows for the complete isolation of each unit during major repairs. This project also includes the installation of a temporary unit to provide cooling capability while the permanent chillers are replaced. This proposal employs a design-build concept wherein the contractor will provide the design drawings, specifications, equipment, construction management, and the related installation of the new absorption chillers and process-piping reconfiguration. The project contingency will provide funds for any additional and unforeseen services that arise during construction. The project is estimated to begin in May of 2005, with completion projected for December of 2005.

Specifications associated with this project were developed and advertised in the San Jose Post Record, the City of San Jose's Bidline, and the Environmental Services Department website.

Bids were opened on January 27, 2005 with the following results:

Contractor	City	Bid Amount
Carrier Corporation	San Leandro	$615,125
Plant's Estimate		**$575,000**
Environmental Systems, Inc. of Northern California	Santa Clara	$489,000

The low bid is 6.5% below the Plant's estimate of $575,000. This project includes work in the Secondary Blower Building at the Plant. Due to the complexity and criticality of the mechanical and piping systems located in the congested basement, a 10% contingency of $49,000 is requested for any unforeseen conditions that may arise during construction.

Environmental Systems, Inc. of Northern California (ESI) is a local consulting/contracting firm that has been in business since 1982. Their area of expertise relates to the design, installation, and service of complex mechanical systems associated with the HVAC (heating, ventilation, and air conditioning) industry. ESI has successfully executed projects of similar scope for a large number of business enterprises throughout the Silicon Valley region, including the City of San Jose. ESI has previously performed work for the Environmental Services Department, specifically the Water Pollution Control Plant, including the recent replacement of a hot water boiler in the Nitrification Building. ESI has successfully demonstrated the ability to execute the project's requirements as defined in the Specifications.

Staff at the Water Pollution Control Plant considered a variety of factors in determining whether to use external labor resources to complete this project. Plant personnel evaluated the expertise of internal staff, and their associated workloads, and determined that performing this project internally was not feasible, especially upon consideration of the Plant's current staffing levels. The Plant's CIP engineering department completed a Contracting-In Checklist Form indicting a deficiency of internal resources within the City to perform this project, and submitted it to Quest. Traditionally, projects of this scale at WPCP involving design and construction have been performed by external consultants and contractors.

OUTCOME

The allocation of funds as recommended in this memorandum is anticipated to result in the following:

- An increase in the reliable delivery of chill water to critical treatment process systems.
- Increased efficiency in the utilization of waste heat energy.
- Improved service and maintenance capability due to the ability to isolate each unit.
- Improved effectiveness and reliability in the air conditioning of work spaces.

PUBLIC OUTREACH

Notice inviting qualified firms to submit bids was published by the City Clerk's Office in the *San José Post Record*, and by the City's Project Manager on the ESD Internet website and General Service's Bidline.

COORDINATION

This project and memorandum have been coordinated with the Department of Planning, Building, and Code Enforcement, the Offices of the City Manager, City Attorney, Equality Assurance and Risk Management. This item is scheduled to be heard at the April 14, 2005 Treatment Plant Advisory Committee (TPAC) meeting.

This recommendation has been reviewed by QUEST Partnership to evaluate if in-house expertise can be used in-lieu of contracting services to an outside vendor. Analysis confirms that, at present, there is no in-house expertise and it remains more cost effective to contract out this service.

COST IMPLICATIONS

1. AMOUNT OF RECOMMENDATION: $489,000

2. COST OF PROJECT

Project Delivery	$ 52,100 *
Construction	436,900
Contingency	49,000
TOTAL PROJECT COSTS	**$ 538,000**
Prior Year Expenditures	$0
REMAINING PROJECT COSTS	**$ 538,000**

*Project delivery includes $14,800 for Design Services and $37,300 for a temporary chilled water plant.

3. SOURCE OF FUNDING: 512 – San Jose-Santa Clara Treatment Plant Capital Fund.

Existing funds are available for this project. No additional appropriation action is required.

FISCAL IMPACT: This project is consistent with the Council approved Budget Strategy Economic Recovery section in that it will help spur construction spending in our local economy.

BUDGET REFERENCE

Fund #	Appn. #	Appn. Name	Total Appn.	Amt. For Contract	2004-2005 Adopted Capital Budget (Page)	Last Budget Action (Date, Ord. No.)
Remaining Project Costs			**$ 538,000**			
Current Funding Available						
512	4332	Equipment Replacement	$1,525,000	$489,000	V-262	
Total Current Funding Available			**$1,525,000**	**$489,000**		

CEQA

Exempt, PP04-306.

Francis B. McCoy

CARL W. MOSHER
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